



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,926	09/12/2000	David Salt	2002645-0003	5915

7590

02/26/2003

Brenda Herschbach Jarrell
Choate Hall & Stewart
Exchange Place
53 State Street
Boston, MA 02109

EXAMINER

IBRAHIM, MEDINA AHMED

ART UNIT

PAPER NUMBER

1638

DATE MAILED: 02/26/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/659,926

Applicant(s)

Salt et al

Examiner

Medina Ibrahim

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 6, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-48 is/are pending in the application.
- 4a) Of the above, claim(s) 8, 10-21, and 23-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, and 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Sep 12, 2000 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. All rejections not set forth below have been withdrawn.

Applicant's response and amendment B filed 12/06/02 have been entered. Claim 22 has been cancelled. Therefore, claims 1-21 and 23-48 are pending. Claims 1-7, 9 and 48 are under examination, and claims 8, 10-21 and 23-47 are withdrawn from consideration as being drawn to the non-elected invention.

The notice of appeal filed on 12/10/02 in reply to the Office action of 6/06/02 is not acceptable under 37 CFR 1.191(a) because there has been no second or final rejection in this application.

Claim Rejections - 35 USC § 112, 2nd paragraph

Claims 1-7, 9, 22, and 48 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because the metes and bounds of nutritionally "significant" concentrations of Se-methylselenocysteine is unclear. Applicant argues that a significant concentration or amount of Se-methylselenocysteine is an amount likely to have nutritional influence. Applicant points out pages 6-7, lines 20-26, and Table 1 of the specification to support the definition. Applicant's arguments have been fully considered but are not found persuasive because of the following reasons: firstly, while the specification provides what may constitute nutritionally significant quantity of Se,

the specification does not define what level of Se- in the form of Se-methylselenocysteine is nutritionally "significant". If Applicant's argument is based on the fact that Se and Se-methylselenocysteine concentrations are interchangeable or are inherently correlated, then the rejection under 102(b) below is applicable.

Secondly, since the final concentration of Se-methylselenocysteine in the crop depends upon the Se-accumulating ability of the crop and the Se-methylselenocysteine content in the growth environment, there is no common ground of definition for "nutritionally significant concentration of Se-methylselenocysteine" of all crops. Therefore, the Examiner maintains that the term "significant" as recited in the claims is open to a variety of interpretations, and one skilled in the art would not know what level of Se-methylselenocysteine constitutes nutritionally "significant". The rejection to claim 1 and dependents 2-7, 9 and 48 is maintained.

Claim Rejections - 35 USC § 102

Claims 1-4, 9 and 48 remain rejected under 35 U.S.C. 102(b) as being anticipated by IP et al (Nutrition and Cancer, vol. 20, no. 2, pp. 129-137, 1993 (U)). This rejection is repeated for the same reasons as set forth in the last Office action. Applicant's arguments filed 12/06/02 have been fully considered but are not deemed persuasive.

Applicant's argue that since the claims are amended to recite selenium in the form of Se-methylselenocysteine, the rejection is obviated. This argument is not deemed persuasive because of the following reasons: 1) The claims do not recite

specific concentration of Se-methylselenocysteine. 2) according to Applicant's arguments to overcome the 112, 2nd rejection, "significant concentration of Se-methylselenocysteine" and "significant concentration of selenium" are defined the same (page 3, 3rd full paragraph of the response). This argument supports Examiner's position. 3) Applicant has not shown any difference between selenium and Se-methylselenocysteine with respect to nutrition or accumulation in the plant. Therefore, given the above reasons, all claim limitations are disclosed by IP et al.

Claims 1-7, 9, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Stoewsand et al (Cancer Letters, vol. 45, pp. 43-48, 1989(V)). This rejection is repeated for the same reasons as set forth in the last Office action.

Stoewsand teaches a method of producing Brussels sprouts of *Brassica oleracea* with increased selenium content. Plants were grown in soil medium into which selenite fertilizer was added. At maturity, the sprouts were harvested, dried, milled, mixed and incorporated into food (see whole document, especially page 44). Increased selenium concentration inherently implies "significant concentration of Se-methylselenocysteine". Since the claims do not recite specific concentration of selenium or Se-methylselenocysteine, all claim limitations are disclosed by the cited reference. The rejection is maintained.

Double Patenting

Claims 1-7, 9 and 48 remain rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-21 of the US

Pat# 6, 117, 462. This rejection is repeated for the same reasons as set forth in the last Office action. Applicant's arguments have been fully considered but are not deemed persuasive because of the following: firstly, the use of an inducing agent to enhance metal accumulation in plants is known to one of ordinary skill in the art. Secondly, the fact the patent claims recite other metal besides selenium doesn't render the claims unobvious. Thirdly, Applicant has not shown unexpected results with the Se-methylselenocysteine. Therefore, the subject matter instantly claimed which is a method of providing a nutritional supplement or producing specific Brassica species with an edible portion having significant concentrations of Se-methylselenocysteine and harvesting the edible portions for use into a processed food or nutritional supplement, would have been obvious over the subject matter claimed, a method of producing a nutritional supplement by growing Brassica plant in a growth environment with an inducing agent, for the plant to hyperaccumulate a nutritionally significant amount of selenium in its edible portions, harvesting said portions to produce a nutritional supplement, in the patent. The rejection is maintained.

Remarks

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Papers relating to this application may be submitted to Technology Sector 1 by facsimile transmission. Papers should be faxed to Crystal Mall 1, Art Unit 1638, using fax number (703) 308-4242. All Technology Sector 1 fax machines are available to receive transmissions 24 hrs/day, 7 days/wk. Please note that the faxing of such papers must conform with the Notice published in the Official Gazette, 1096 OG 30, (November 15, 1989).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina a. Ibrahim whose telephone number is (703) 306-5822. The Examiner can normally be reached Monday -Thursday from 8:30AM to 5:00 PM, and every other Friday from 8:30 AM to 5:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0196.

February 20, 2003

mai


ELIZABETH F. McELWAIN
PRIMARY EXAMINER
GROUP 1600